

THE STATUS OF *AGANIPPEA BELLIDIFLORA*  
(COMPOSITAE-HELIANTHEAE)

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The genus *Aganippea* has been monotypic, containing only the Mexican endemic *A. bellidiflora*, since Blake (1930) placed *A. dentata* DC., the only other described species, in synonymy with *Sabazia humilis* (H. B. K.) Cass. Bentham (1873, p. 438) assigned *Aganippea* to the subtribe Zinninae because of its nearly sessile ray corollas which he erroneously considered to be persistent on the ripe achenes, and because of the absence of a pappus. Hoffmann (1894) followed Bentham in including the genus in the Zinninae where its position until now has been accepted.

During studies of the Zinninae, Torres noted that *Aganippea* was anomalous in that subtribe in several characters. In a discussion of the problem, Beaman suggested the possibility of a relationship between *Aganippea* and *Jaegeria*. Our subsequent examination of herbarium material resulted in the conclusion that *A. bellidiflora* was so similar to several species of *Jaegeria* that it could not be maintained as a separate genus — thus we make the following transfer.

***Jaegeria bellidiflora*** (Moc. & Sessé ex DC.) Torres & Beaman,  
comb. nov.

*Aganippea bellidiflora* Moc. & Sessé ex DC. Prod. 6:3. 1838. TYPE: Calques des Dessins, Flore du Mexique de Mociño et Sessé, t. 700 (G, original; MO, blueprint copy!; F, photo no. 30737!).

*Heliogenes longifolia* Benth. Pl. Hartw. 42. 1840. TYPE: Regla, Hartweg 323 (K, holotype!; MSC, photo!).

Characters which relate *Jaegeria bellidiflora* to other species of *Jaegeria* and distinguish it from the Zinninae are given in the following table.

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*Jaegeria bellidiflora*

and related species of

*Jaegeria*

## Zinninae

Plants emergent aquatic, rhizomatous	Plants terrestrial, not rhizomatous
Phyllaries in two equal series	Phyllaries imbricated
Phyllaries with scarious, winglike basal portions enveloping the ray achenes	Phyllaries without winglike basal portions enveloping the ray achenes
Ray corollas deciduous, constricted at the point of attachment to the achene	Ray corollas persistent, not constricted at point of attachment to the achene
Disk corollas with abrupt basal constrictions	Disk corollas without abrupt basal constrictions

The only significant character common to *Jaegeria bellidiflora* and the Zinninae is the nearly sessile ray corollas. This character, however, is almost duplicated in several other species of the genus. *Jaegeria bellidiflora* is morphologically most similar to *J. pedunculata* Hook. & Arn. and *J. purpurascens* Robins. from which it differs in its larger size, fewer branches, fewer heads, and other minor characters. It attains a greater size than any other member of the genus.

*Jaegeria* was placed by Bentham (1873) and retained by Hoffmann (1894) in the subtribe Verbesininae. We suspect that this classification is not entirely satisfactory, but thorough studies of a number of genera in the subtribes Verbesininae and Galinsoginae must be undertaken before realignments can be made. The removal of *Aganippea* from the Zinninae, however, results in a better structure of that subtribe.

Bentham's genus *Heliogenes* has long been considered synonymous with *Aganippea*. From a photograph of the type of *Heliogenes longifolia*, we are confident that it is identical with *Jaegeria bellidiflora*. The disposition of *H. reglae* Benth. (the only other species of *Heliogenes* described) is problematical. From a photograph of the type, we suspect that it may be the same as *Jaegeria pedunculata*. Direct observation of the specimen will be required, however, before its status can be properly determined.

The following description of *Jaegeria bellidiflora* will amplify its previous rather brief descriptions.



Perennial, emergent aquatic, erect herb, ca. 5-10 dm. high; rhizomes thick, hollow, with opposite scale leaves and fibrous roots at the nodes; stems thick, hollow, striate, glabrate to sparsely pilose below, becoming densely pilose above; stem leaves opposite, sessile-clasping, inconspicuously dentate-serrate, lanceolate, with three principal parallel veins, up to 8.5 cm. long and 1.7 cm. wide, glabrate above, sparsely pilose below, especially on the veins; peduncles axillary, solitary, slender, pilose to densely pilose-strigose, ca. 7 cm. long; heads campanulate, ca. 1 cm. high, 2.3 cm. wide (including the rays); phyllaries 2-seriate, linear-lanceolate, herbaceous, 3-4-nerved, the lower 1/3 abruptly expanded into scarious wings enveloping the ray achenes, the lower portion hirsute-pilose on and near the nerves, the upper portion glabrous except for a few appressed hairs on the margins; rays pistillate, fertile; ray corollas white, ca. 12 mm. long, 3 mm. wide, the short tube ca. 0.2 mm. long, apices minutely 2-lobed to entire; style branches of the ray short, lanceolate, flattened, glabrous, the apices obtuse; disk flowers hermaphroditic, fertile; disk corollas yellow, ca. 3 mm. long, tube basally constricted for ca. 0.8 mm., densely pilose on the constriction, glabrous above; style branches of the disk flattened, lanceolate, papillose-pubescent, the papillae longer near the obtuse apex; anthers loosely connate, the bases sagittate, the apical appendages ovate; achenes dark brown, minutely striate, shiny, oblanceolate, those of the ray mostly 3-angled, those of the disk 4-angled; pappus absent; receptacle rounded-conical, ca. 4 mm. long, paleaceous; paleae scarious, 3-nerved, broadly oblanceolate, glabrous, ca. 3.5 mm. long, the upper portion lacerate-ciliate.

The species occurs in shallow water of small streams, ponds, or marshes at elevations of about 2,000 to 2,700 meters in or near the trans-Mexican volcanic zone of south-central Mexico.

Representative specimens: MEXICO. FEDERAL DISTRICT: Xochmilco [Xochimilco], 7,480 ft, *G. L. Fisher*, 1924 (MO); Valley of Mexico, 7,300 ft, *Pringle 6230* (F, MO, MSC); Valley of Mexico, 7,300 ft, *Pringle 9839* (F, MO); Churnbusco, *Orcutt 4277* (F, MO). HIDALGO: Regla, *Hartweg 323* (K, holotype of *Heliogenes longifolia*). STATE OF MEXICO: 1 km NW of Del Río Station, ca. 20 km. NW of Toluca, ca. 2,550 m. alt., *Beaman 4236* (MSC, UWM); Lerma, *Martínez 15129* (MO). MICHOACAN: vicinity of Morelia, 1,950 m., *Arsène 8577* (F, MO); vicinity of Morelia, Rio Grande, *Arsène*, 1912 (MO). PUEBLA: Cholula, 2,170 m., *Arsène & Nicolas 5253* (MO).

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MAGNOLIA GRANDIFLORA IN GRAY'S MANUAL RANGE — Some groups of very old trees of *Magnolia grandiflora* L. were discovered growing in sandy soil of a swamp in Princess Anne County, Virginia during the course of mid-winter field work on the vegetation of Virginia. Many seedlings of various sizes were also growing in the area.

The northern edge of the magnolia swamp occurs about two miles southeast of Pungo. The area of magnolias extends for about a mile southward and is more than one-half mile wide in places. The land has been partially drained and some of it is cultivated; other areas are used for hog-runs. Drainage operations were going on at the time of collecting the specimens.

An attempt to count the magnolia plants was started, but was abandoned when it became evident that the number would run into the hundreds. Some associates of the magnolia in the Virginia locale are *Pinus taeda*, *Ilex vomitoria*, *Persea borbonia*, *Liquidambar styraciflua*, *Myrica cerifera*, *Gelsemium sempervirens*, and *Baccharis halimifolia*.

After seeing prized specimens of *Magnolia grandiflora* in such far-away places as Oxford, England; Cairo, Egypt; and the Canary Islands, it is of considerable interest to find this strikingly-beautiful American tree growing in a region which has been settled for three centuries, and to add it to the range of Gray's Manual, which has included Virginia for 107 years.

Specimens of the *Magnolia*, *Harvill 11044*, are deposited in the herbarium of Longwood College.

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